



**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant: Charles W.C. Lin  
Title: BUMPLESS FLIP CHIP ASSEMBLY WITH SOLDER VIA  
Serial No.: 09/852,824 Filed: May 10, 2001  
Examiner: Graybill, D. Group Art Unit: 2827  
Atty. Docket No.: P002-2

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COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, VA 22313-1450

**PETITION FOR WITHDRAWAL OF  
RESTRICTION REQUIREMENT**

This Petition is filed under 37 C.F.R. § 1.144 to request that the outstanding restriction requirement be withdrawn.

**I. FACTS**

**First Office Action**

The Office Action dated January 14, 2003, set forth the following restriction requirement:

<u>Species</u>	<u>Description</u>
1A	Depositing the solder on the metallization using electroplating.
1B	Depositing the solder on the metallization using electroless plating.
1C	Depositing the solder on the metallization using wave soldering.
1D	Depositing the solder on the metallization using meniscus coating.
1E	Depositing the solder on the metallization using solder paste printing.

- 2A Attaching the substrate using an adhesive.
- 2B Attaching the substrate using a mechanical clamp.
- 3A Applying heat to reflow the solder using a convection oven.
- 3B Applying heat to reflow the solder using a laser.
- 3C Applying heat to reflow the solder using an infrared continuous belt reflow oven.
- 3D Applying heat to reflow the solder using nitrogen gas.
- 3E Applying heat to reflow the solder using a vapor reflow system.
- 4A Substantially all of the solder joint is within the via hole.
- 4B The solder joint fills a bottom portion of the via hole without filling a top portion.

The Examiner required Applicant to elect (1) Species 1A, 1B, 1C, 1D or 1E, (2) Species 2A or 2B, (3) Species 3A, 3B, 3C, 3D or 3E, and (4) Species 4A or 4B, and provide a listing of all claims readable thereon.

The Examiner also asserted that claim 1 was generic to all Species, despite the fact that claim 1 was cancelled and, as the Examiner noted, claims 15-119 were pending.

### **Response**

The Response filed on February 14, 2003, identified Species 1A, 2A, 3A and 4B, and explained that:

For Species 1A, claims 15-30, 35-61 and 66-119 are readable thereon.

For Species 2A, claims 15-38 and 40-119 are readable thereon.

For Species 3A, claims 15-40 and 45-119 are readable thereon.

For Species 4B, claims 15-119 are readable thereon.

The Response concluded, based on the claim listings above, that claims 15-30, 35-38, 40, 45-61 and 66-119 are readable on Species 1A, 2A, 3A and 4B. Accordingly, the Response provisionally elected claims 15-30, 35-38, 40, 45-61 and 66-119 with traverse and requested reconsideration of the restriction requirement

The Response also argued against the restriction requirement as follows:

There must be a serious burden on the examiner if the restriction is required (M.P.E.P. § 803). Where the related inventions as claimed are shown to be distinct, the Examiner, in order to establish reasons for insisting upon restriction, must show by appropriate explanation one of the following: (A) separate classification thereof; (B) a separate status in the art when they are classifiable together; or (C) a different field of search (M.P.E.P. § 808.02). (Emphasis in original)

The Examiner has not even attempted to explain why the various Species would involve separate classification, separate status in the art, or a different field of search (M.P.E.P. § 808.02). Applicant believes this ignores the mandatory elements set forth in the M.P.E.P. and therefore is improper.

### **Second Office Action**

The Office Action dated September 23, 2004, maintained the restriction requirement as to Species 1, 2 and 3, and withdrew the restriction requirement as to Species 4.

The Examiner maintained the restriction requirement merely because “the reasons for insisting on restriction as stated in MPEP 808.01(a) have been clearly met.”

The Examiner also asserted “The correct grouping of claims to which this species is drawn is claims 15, 16, 18-20, 22-30, 35-49, 55-61, 66-79, 85-104 and 110-119.”

## II. ARGUMENTS

The Arguments set forth in the Response and repeated above are sound. Namely, the Examiner has not even attempted to explain why the various Species would involve separate classification, separate status in the art, or a different field of search (M.P.E.P. § 808.02), and therefore, has ignored mandatory elements set forth in the M.P.E.P. Furthermore, the Examiner has not even attempted to explain why examining the various Species would constitute a “serious burden.” Instead, the Examiner merely asserts that “the reasons for insisting on restriction as stated in MPEP 808.01(a) have been clearly met.”

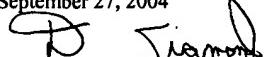
The Examiner has the burden of establishing that the restriction requirement is justified. The mandatory elements set forth in the M.P.E.P. prevent the Examiner from having unfettered discretion over issuing restriction requirements that force Applicant to file divisional applications and absorb the related costs and delays in order to have the non-elected claims considered on the merits.

If, however, the Examiner can obtain a restriction requirement merely by asserting that “the reasons for insisting on restriction as stated in MPEP 808.01(a) have been clearly met” then these mandatory elements are easily circumvented and rendered meaningless.

Moreover, even assuming, *arguendo*, that the restriction requirement has merit (although it does not), the Examiner has failed to provide any justification for withdrawing claims 17, 21, 50-54, 80-84 and 105-109 from the elected claims. The claims are readable upon the elected Species, and the Examiner has not even attempted to explain why they are not.

For these reasons, Applicant respectfully asserts that the restriction requirement is totally unjustified and requests that it be withdrawn.

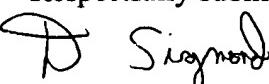
I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as First Class Mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on September 27, 2004



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9/27/04  
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Respectfully submitted,



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